

## ABSTRACT

Peptide motifs which define specificity of tumor-derived endothelial cells. These peptides possess a charge motif of positive-positive-hydrophobic which is important in determining the specificity of binding to tumor-derived endothelium. The specific molecular peptide motifs will facilitate diverse therapeutic and diagnostic applications including: anti-angiogenic therapies to be used in alone or in conjunction with standard therapies; imaging tools for both detection of very small metastasis that are undetectable by current techniques; for monitoring tumor response; for targeting and directing chemotherapy drugs to the tumor; for treatment of chronic inflammatory diseases such as rheumatoid arthritis and psoriasis, for treating some forms of blindness; as well as other diagnostic and therapeutic applications.